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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/195,129	11/18/1998	JIAN ZHOU	A-66713/WSG/	3991

24341 7590 04/01/2002

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EXAMINER

GRIER, LAURA A

ART UNIT

PAPER NUMBER

2644

DATE MAILED: 04/01/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/195,129

Applicant(s)

ZHOU ET AL.

Examiner

Laura A Grier

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 8, 9 and 13-18 is/are rejected.
- 7) ☒ Claim(s) 5-7 and 10-12 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. **Claim 11** is objected to because of the following informalities: in lines 19 and 20, there a lack of antecedent basis: line 19, recites, "steps f1 and f2", line 20 recites, 'step f3". Appropriate correction is required.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. **Claims 13-18** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The modules are merely computer programs not incorporating at computer readable medium.

Specification

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Claims 13-18 recite a method for transferring data over a network between a first and second computer, therein. This embodiment is not provided in the disclosure.

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Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. **Claim 1** is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6163789 in view of Tran et al., U. S. Patent No. 6359987 and further in view of Lane et al., U. S. Patent No., U. S. Patent No. 5737254.

Regarding **claim 1**, U. S. Patent No. 6163789 discloses in a computer readable memory to direct a computer to function in a specified manner in claim 1, comprising a set of instructions to implement a filter to realize a parametric equalize; and further in claim 10, a method of realizing a parametric equalizer using digital filter implemented by a computer executing instructions stored in a memory, wherein is inherent that such system may be used for equalization for audio loudspeakers of computer, which evident by one of ordinary skill that computers are multimedia including audio systems with speakers. However, U. S. Patent No. 6136789 fails to specifically disclose a set of instructions for determining a type of speaker for the computer and instructions for

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selecting a set of filter coefficients for a digital filter for the particular type of speaker used by the computer. The examiner maintains that such instructions are well known in the art.

Regarding the instructions of determining a speaker type, in similar field of endeavor, Tran et al. (hereafter, Tran) discloses a multimedia speaker detection circuit. Tran's disclosure comprises a system to determine the type of speaker is being used by the computer and apply the appropriate equalization needed, this functions is provided via a CPU coupled to a memory for relaying instructions between the computer peripherals for the needed functions, which supports a programs with instructions, which provides obviousness of the a set of instructions for determining the typed of speaker(s) used by the computer (col. 4, lines 19-67, col. 5, lines 1-8, col. 5, lines 41-45 and 49-51, col. 6, lines 55-67 through col. 7, lines 1-10; and figures 1 and 4).

It would have been obvious to one of the ordinary skill in the art at the to time the invention was made to modify the invention of U. S. Patent No. 6163789 by implementing a set instructions for determining the type of speaker used by a computer for the purpose of providing adequate equalization for the specific audio parameters. However, Tran et al. fails to disclose the equalization circuit or means as a digital filter based on a set of instructions of filter coefficients, therein.

Regarding the instructions for selecting set of filter coefficients for a digital filter, in a similar field of endeavor, Lane et al. discloses a symmetrical filtering apparatus and method therefore. Lane et al.'s (hereafter, Lane) disclosure teaches means of a memory for providing instructions and provide filter control parameters such as filter

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coefficients wherein the filter is a digital filter for processing audio signals in relations to audio systems and speakers, wherein it obvious the signal will be input into a particularly desired speaker (abstract and figures 10-11 and col. 3, lines 24-43).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of U. S. Patent No. 6163789 and Tran et al. by implementing further instruction of selecting a set of filter coefficients for a digital filter for the purpose of optimizing compensation of errors in the transfer functions of an audio system.

Regarding **claims 2 and 14**, U. S. Patent No. 6163789, Tran et al., and Lane (hereafter, Tran) discloses everything claimed. Further, U. S. Patent No. 6163789 instructions for user specified equalizer parameters for the equalizer in claim 4, which obviously provide means of for a set of instruction to calculate a set of filter coefficients for the specified parameters.

Regarding **claim 3**, Tran discloses everything claimed as applied above (see claim 2). U. S. Patent No. 6163789 inherently discloses the claimed limitations in claims 5 and 6.

7. **Claim 8** is rejected for the same reasons set for the in claim 1, Tran discloses the computer speaker as a USB type speaker, as evident by the USP connectors, and further, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Tran by providing instructions for generating or selecting a different set of coefficients if the type of speaker differed in

type, wherein this a well known technique for providing loudspeaker compensation. Each type of loudspeaker is given the quality of compensation depending on its physical characteristics.

Claim 9 is rejected for the same reasons set forth in claim 3.

8. **Claim 13** is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6163789 in view of Tran et al. and further in view of Lane et al.

Regarding **claim 13**, U. S. Patent No. 6163789 discloses in a computer readable memory to direct a computer to function in a specified manner in claim 1, comprising a set of instructions to implement a filter to realize a parametric equalizer; and further in claim 10, a method of realizing a parametric equalizer using a digital filter implemented by a computer executing instructions stored in a memory, wherein it is inherent that such system may be used for equalization for audio loudspeakers of a computer, which is evident to one of ordinary skill that computers are multimedia including audio systems with speakers. However, U. S. Patent No. 6136789 fails to specifically disclose a set of instructions for determining a type of speaker for the computer and instructions for selecting a set of filter coefficients for a digital filter for the particular type of speaker used by the computer. The examiner maintains that such instructions are well known in the art.

Regarding the instructions of determining a speaker type, in a similar field of endeavor, Tran et al. (hereafter, Tran) discloses a multimedia speaker detection circuit.

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Tran's disclosure comprises a system to determine the type of speaker (a USB type speaker, as evident by the USP connectors) is being used by the computer and apply the appropriate equalization needed, this functions is provided via a CPU coupled to a memory for relaying instructions between the computer peripherals for the needed functions, which supports a programs with instructions, which provides obviousness of the a set of instructions for determining the typed of speaker(s) used by the computer (col. 4, lines 19-67, col. 5, lines 1-8, col. 5, lines 41-45 and 49-51, col. 6, lines 55-67 through col. 7, lines 1-10; and figures 1 and 4).

It would have been obvious to one of the ordinary skill in the art at the to time the invention was made to modify the invention of U. S. Patent No. 6163789 by implementing a set instructions for determining the type of speaker used by a computer for the purpose of providing adequate equalization for the specific audio parameters. However, Tran et al. fails to disclose the equalization circuit or means as a digital filter based on a set of instructions of filter coefficients, therein.

Regarding the instructions for selecting set of filter coefficients for a digital filter, in a similar field of endeavor, Lane et al. discloses a symmetrical filtering apparatus and method therefore. Lane et al.'s (hereafter, Lane) disclosure teaches means of a memory for providing instructions and provide filter control parameters such as filter coefficients wherein the filter is a digital filter for processing audio signals in relations to audio systems and speakers, wherein it obvious the signal will be input into a particularly desired speaker (abstract and figures 10-11and col. 3, lines 24-43).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of U. S. Patent No. 6163789 and Tran et al. by implementing further instruction of selecting a set of filter coefficients for a digital filter for the purpose of optimizing compensation of errors in the transfer functions of an audio system.

The transfer of data over a network is well known. Hence, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Tran by implementing the technology of audio data from one computer to another, wherein the technique transmitting audio data and/or parameters to local and remote locations via a computer network to control particular audio devices is well known in the art.

Regarding **claims 4, and 15**, Tran discloses everything claimed as applied above (see claim 1, 8 and 13, respectively). Further, Lane provides inherent support of the claimed instructions of multiple filter and/or equalizer bands (col. 4, lines 64 and 1-11).

Allowable Subject Matter

Claims 5-7, 10-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura A Grier whose telephone number is (703) 306-4819. The examiner can normally be reached on Monday - Friday, 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W. Isen can be reached on (703) 305-4386.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231


Or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

LAG
March 24, 2002


FORESTER W. ISEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600